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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,790	08/12/2002	Toshihiro Fukuda		9542
22511	7590	03/26/2004		
OSHA NOVAK & MAY L.L.P. 1221 MCKINNEY STREET HOUSTON, TX 77010			EXAMINER DEPUMPO, DANIEL G	
			ART UNIT	PAPER NUMBER

3611

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,790

Applicant(s)

FUKUDA ET AL.

Examiner

Daniel G. DePumpo

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 14-16, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5 and 11.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 3611

1. Applicant's election without traverse of Species B and Species I (claims 1-3, 14-16, 18 and 19 readable thereon) and in Paper No. 15 is acknowledged.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3, 14-16, 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 has been amended to recite that the ball screw shaft (i.e. 22) is supported by the nut (i.e. 29) only. This recitation is not understood because it appears that the shaft 22 must be supported to some degree at other locations, such as where it engages the pinion 7.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 14-16, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 has been amended to recite that the ball screw shaft (i.e. 22) is supported by the nut (i.e. 29) only. This recitation is not understood because it appears that the shaft 22 must be supported to some degree at other locations, such as where it engages the pinion 7.

In claim 1, line 15, "an elastic member deforming" is vague and indefinite.

Art Unit: 3611

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 14, 16, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Joshita.

Joshita teaches a steering apparatus having the structure substantially as claimed. The device includes a ball screw shaft 4, a torque sensor 7, a rotor 8e, a ball screw nut 10, and an elastic member 50. Since Joshita does not mention any other support for the shaft 4, it is considered to be supported only by the screw nut, to the same degree as the instant invention.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 14-16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu '829.

Shimizu teaches a steering apparatus having the structure substantially as claimed. The device includes a ball screw shaft 3, a torque sensor 6, a rotor 10a, a ball screw nut 31, and an elastic member (either belt 9, or members 33/34). The shaft 3 is supported by additional elements such as the bearing 30. However, elimination of an element (i.e. bearing 30) and its function would have been obvious.

Art Unit: 3611

10. Claims 1-3, 14-16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugino in view of Boyer.

Sugino teaches a steering apparatus having the structure substantially as claimed. As shown in fig. 3, the device includes a ball screw shaft 11, a torque sensor 9, a rotor 13, a ball screw nut 15, and an elastic member 42. The shaft 11 is supported by additional elements such as the bearing 4. However, Boyer teaches a similar system wherein the only the screw nut supports the screw shaft (col. 4, line 65). It would have been obvious to modify Sugino, by designing the system so that only the ball nut supports the shaft, as taught by Boyer, to eliminate the cost of providing additional bearings. Moreover, it is well settled that the elimination of an element and its function would have been obvious.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shimizu '972, Kuribayashi, Cheng, Kodaira '802, Bugosh, Yost, Tsuboi and Kodaira '799 disclose various devices having features in common with the instant invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel G. DePumpo whose telephone number is 703 308-1113. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 703 308 1113. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel G. DePumpo
Primary Examiner
Art Unit 3611

dgd
3/22/04